ABSTRACT

An efficient method and system for eliminating halftone screens from scanned documents while preserving the quality and sharpness of text and line-art is disclosed. The method and system utilizes one or more independent channels with different sensitivities (e.g., Max, High, and Low) to provide high quality frequency and magnitude estimation. The most sensitive channel (Max) derives the frequency estimate, and the remaining channels (e.g., High and Low) are combined to create the screen magnitude. The Max channel is the most sensitive and will usually report the existence of frequencies even when the screen is very weak. Therefore, the screen frequency must be additionally qualified by the screen magnitude. The screen magnitude can be interpreted as the level of confidence that the local neighborhood represents half-toned data.